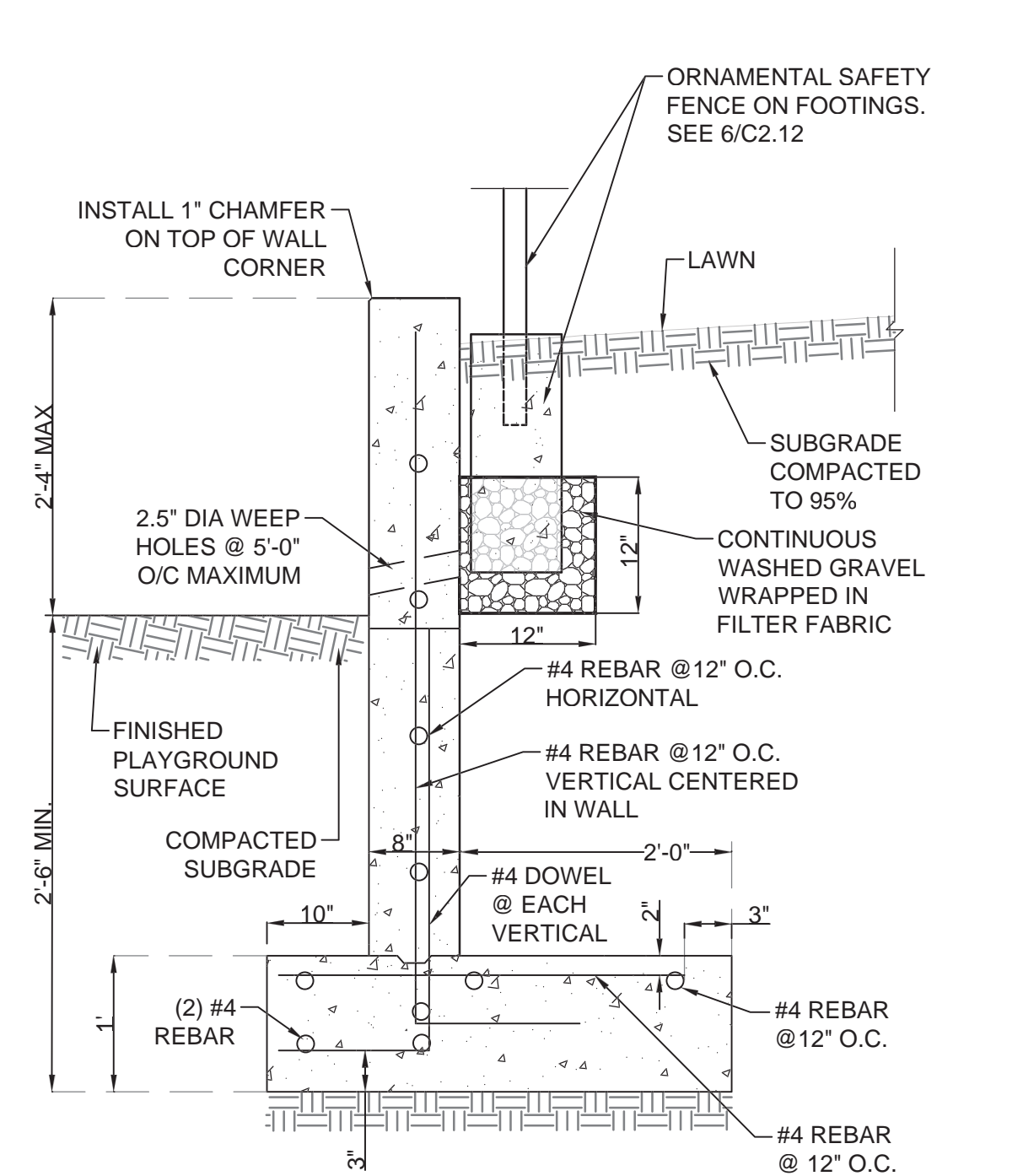


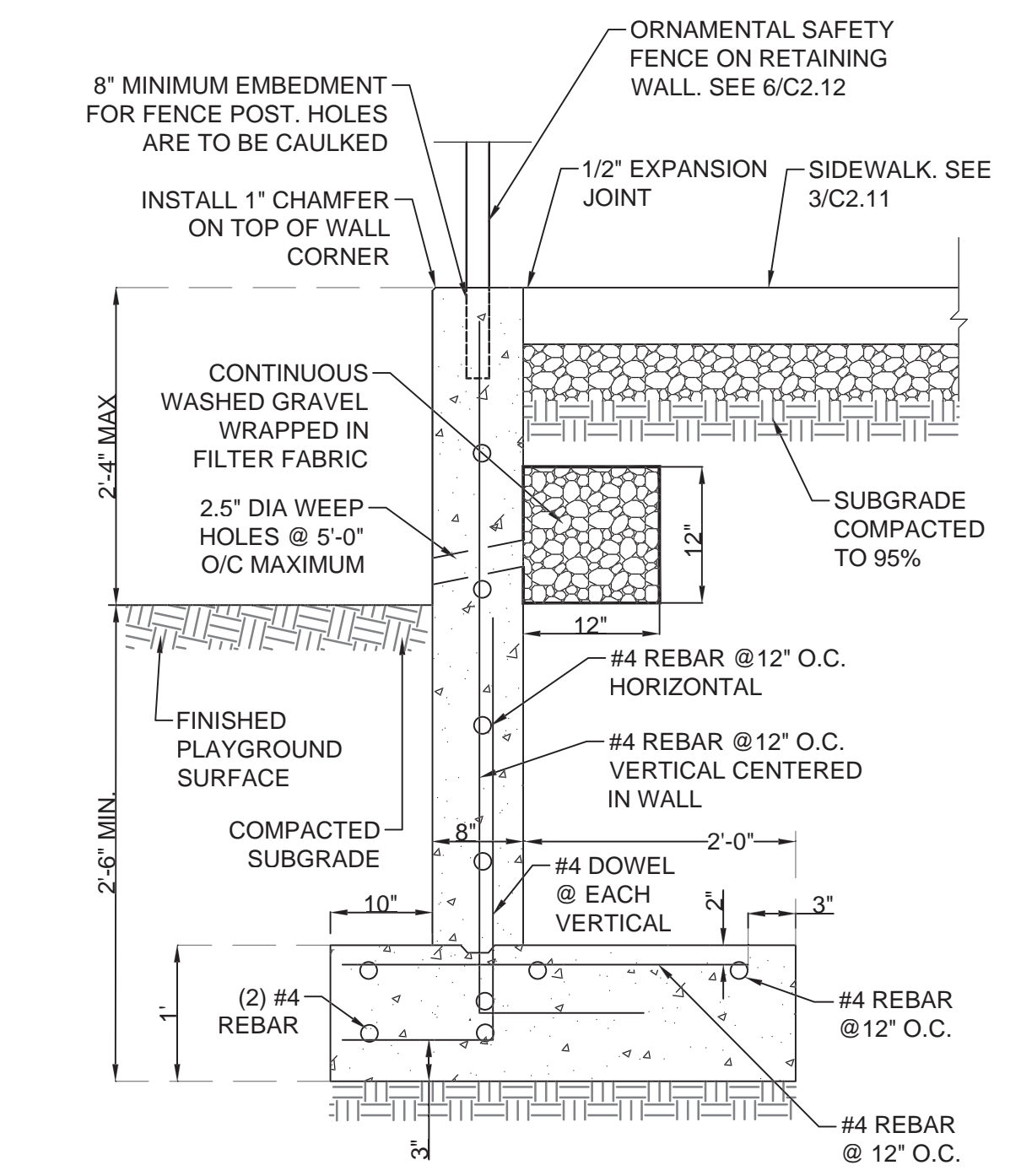
KINDERGARTEN PLAY AREA CONCRETE WALL PLAN VIEW

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. SEE 1/C2.18 - 6/C2.18 FOR SECTIONS



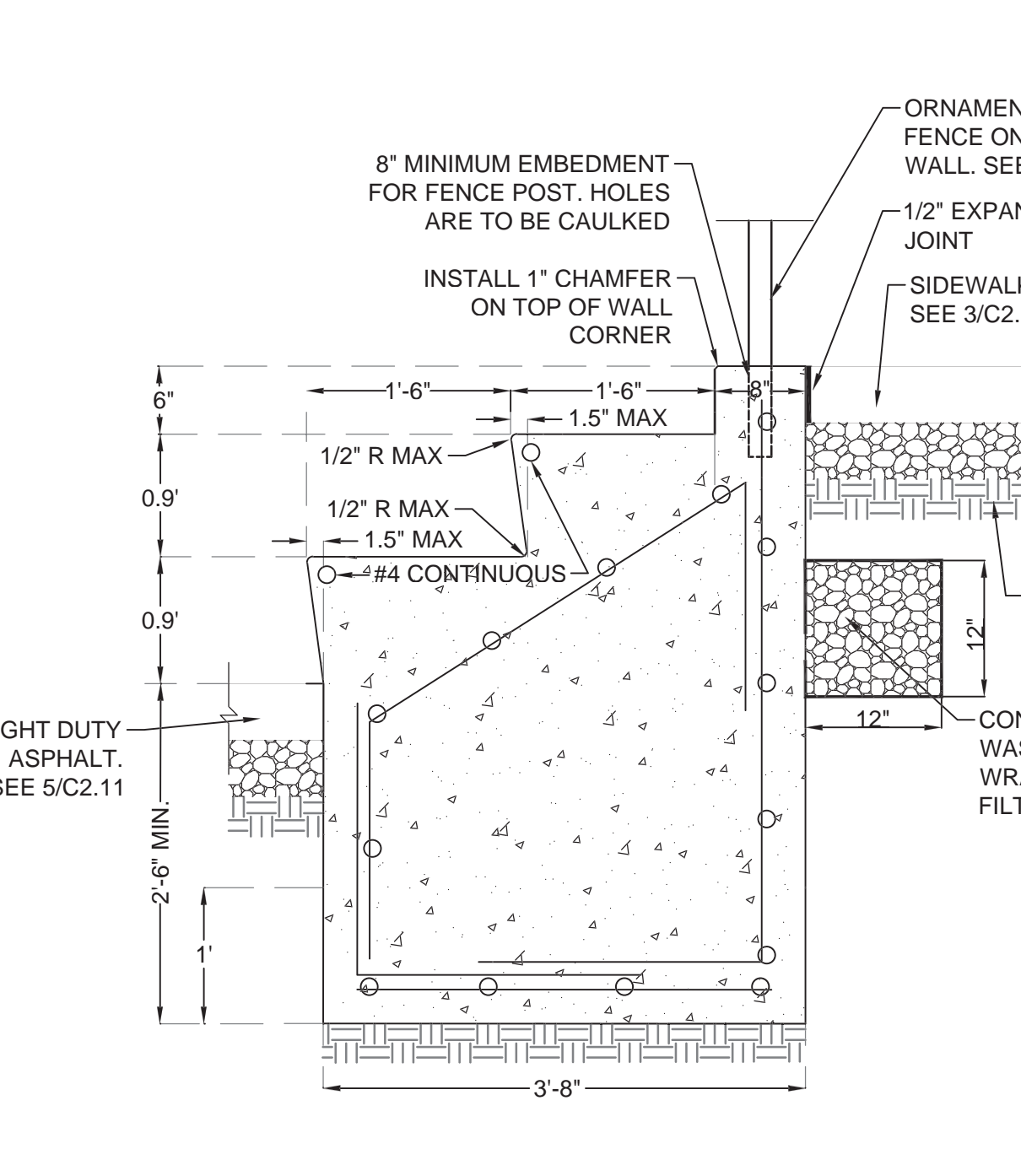
SECTION A-A' - CONCRETE RETAINING WALL DETAIL

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. ADD RUBBER FINISH PAINT PER PAINTING SPECIFICATIONS



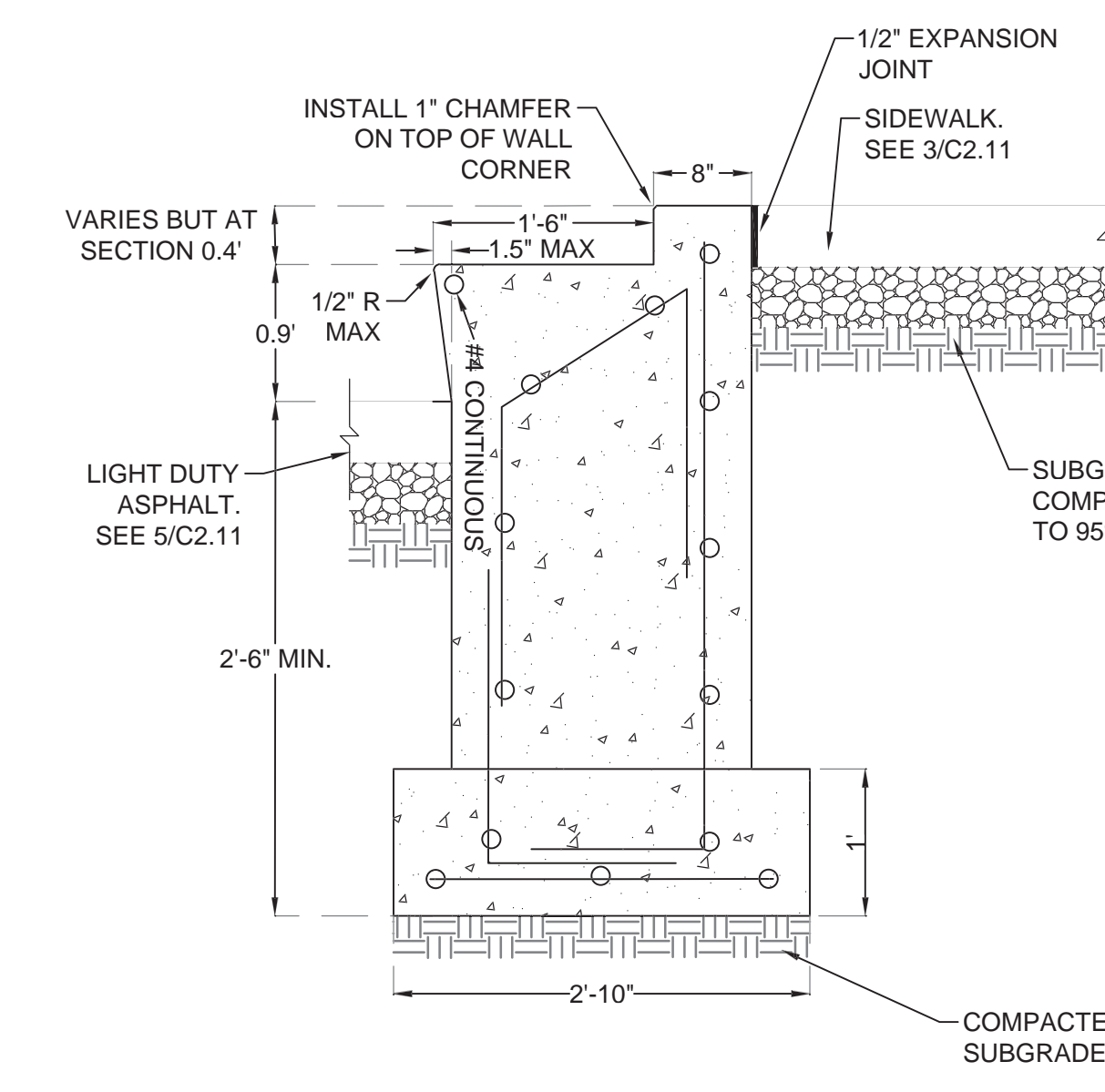
SECTION B-B' - CONCRETE RETAINING WALL DETAIL

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. ADD RUBBER FINISH PAINT PER PAINTING SPECIFICATIONS



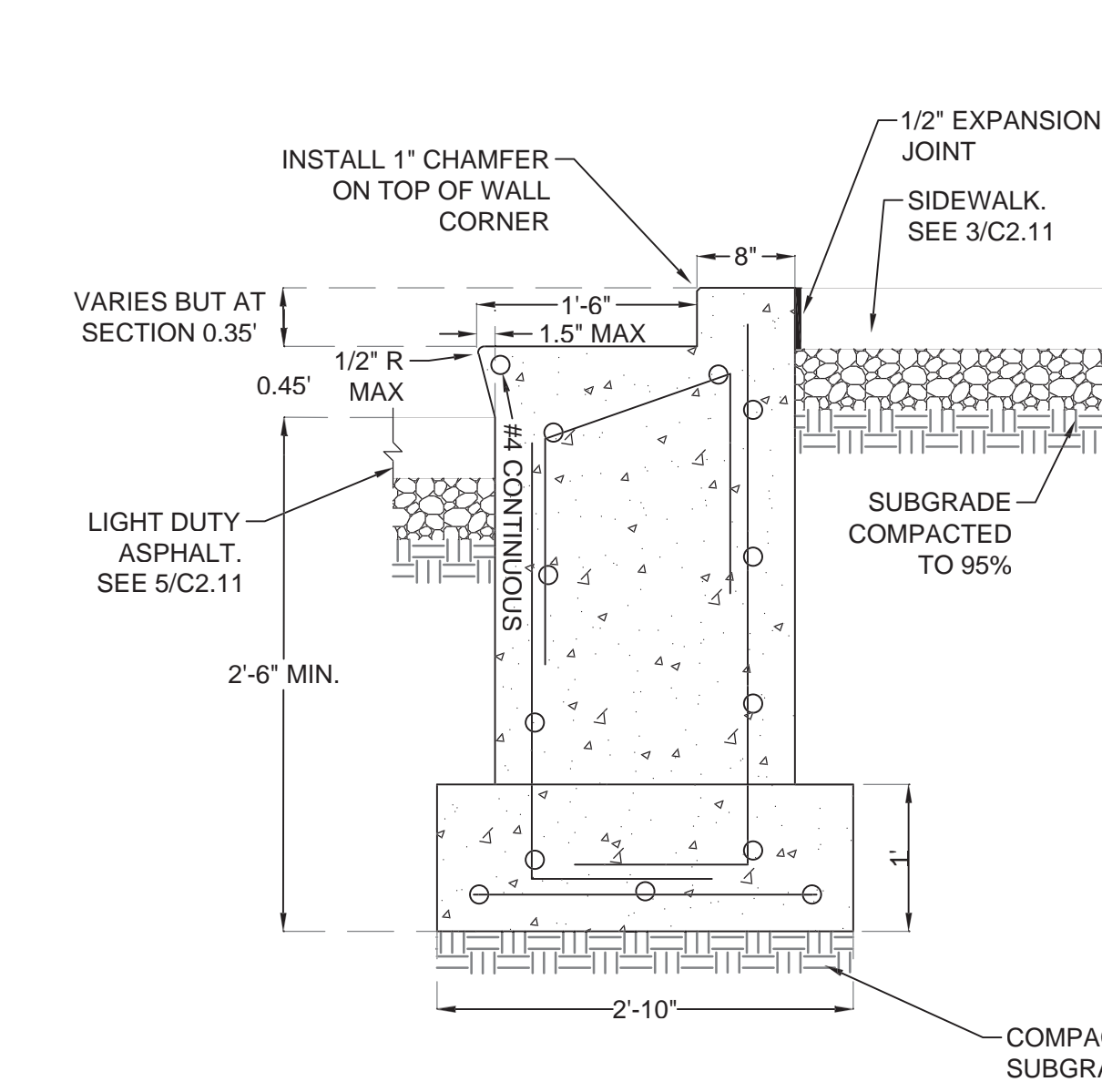
SECTION C-C' - CONCRETE STADIUM SEATING AND WALL

1. ALL BARS #4 @ 12\"/>



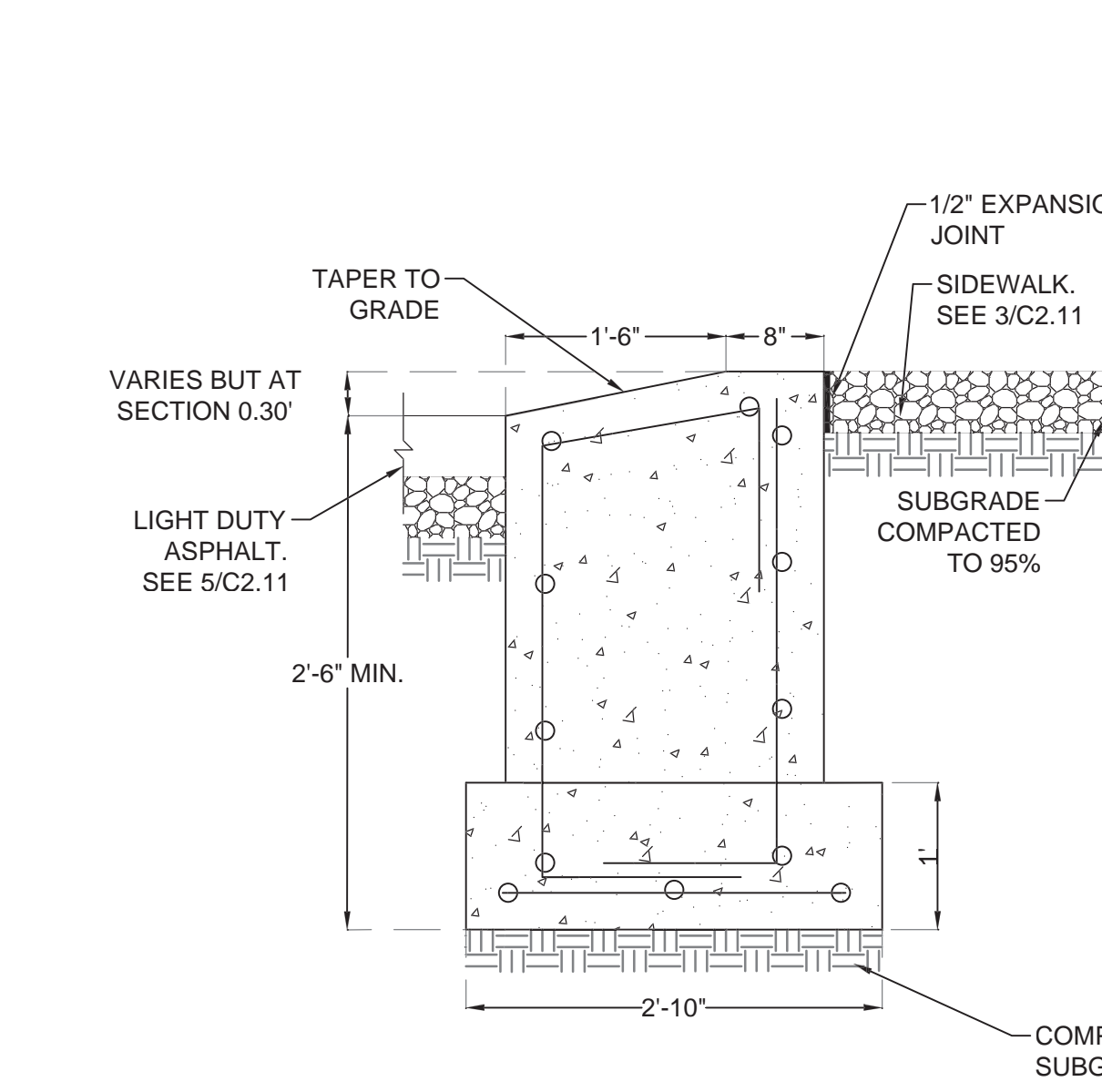
SECTION D-D' - CONCRETE STADIUM SEATING AND WALL

1. ALL BARS #4 @ 12\"/>



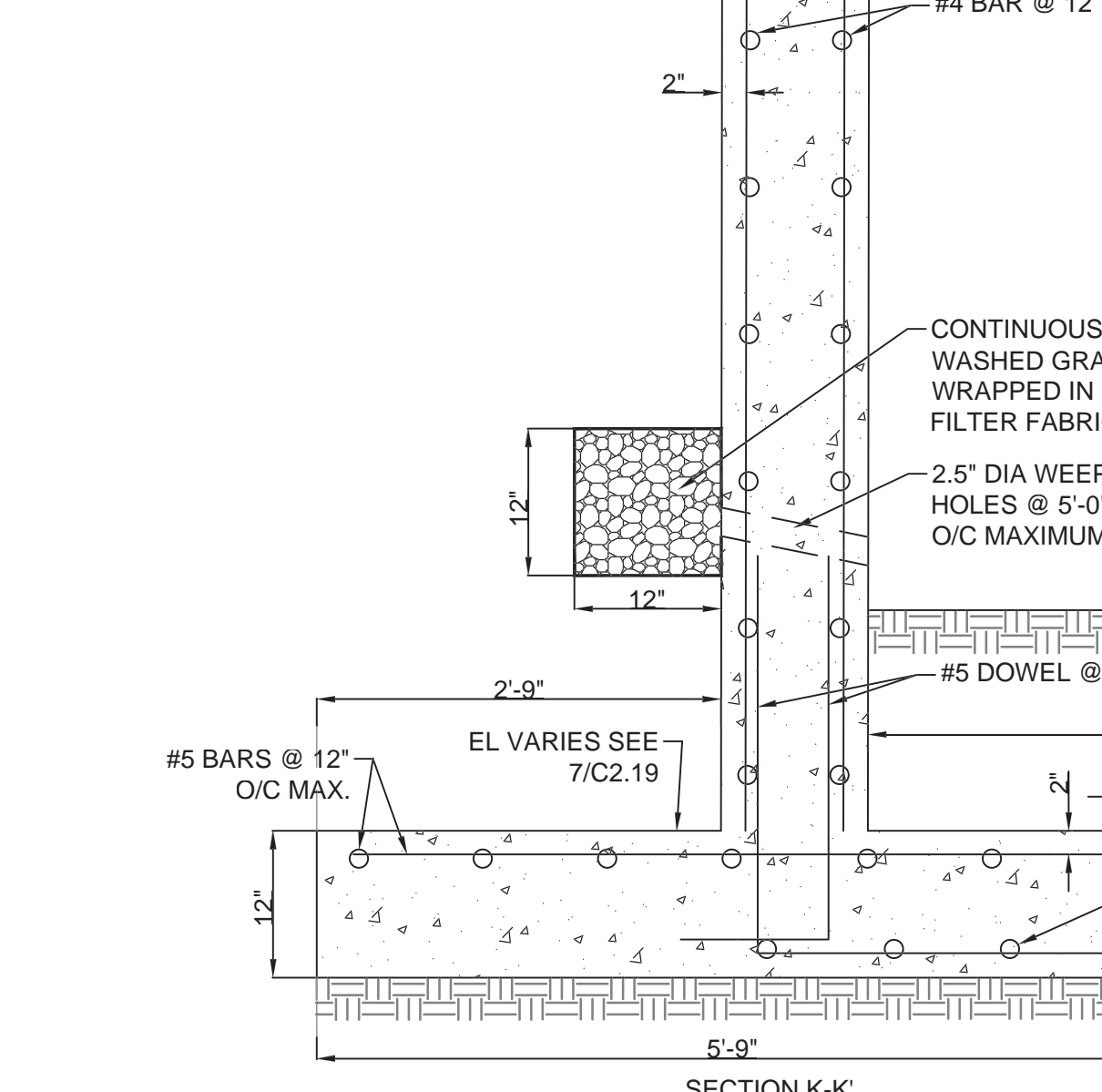
SECTION E-E' - CONCRETE STADIUM SEATING AND WALL

1. ALL BARS #4 @ 12\"/>



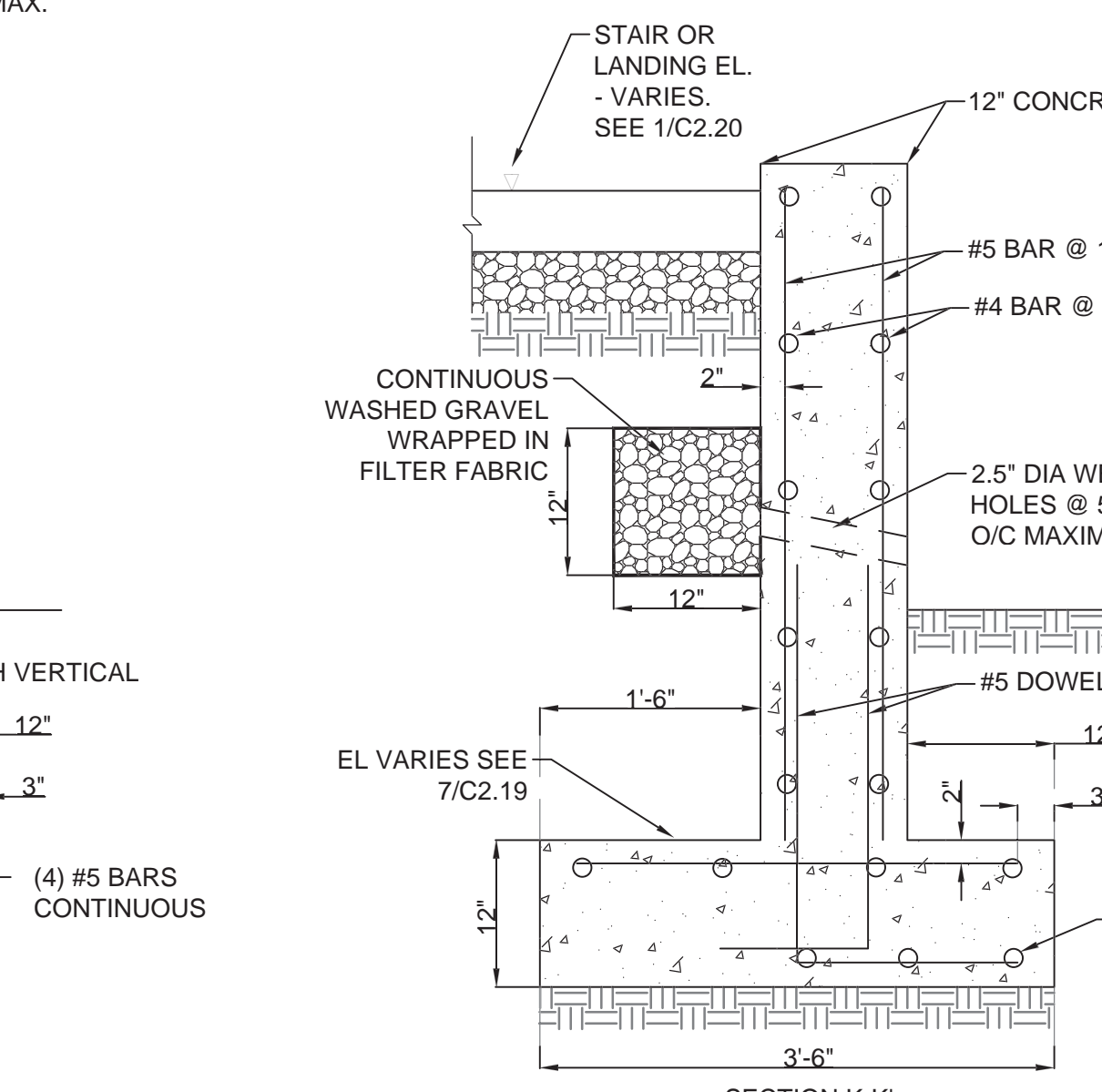
SECTION F-F' - CONCRETE RETAINING WALL AND TETHER

1. ALL BARS #4 @ 12\"/>



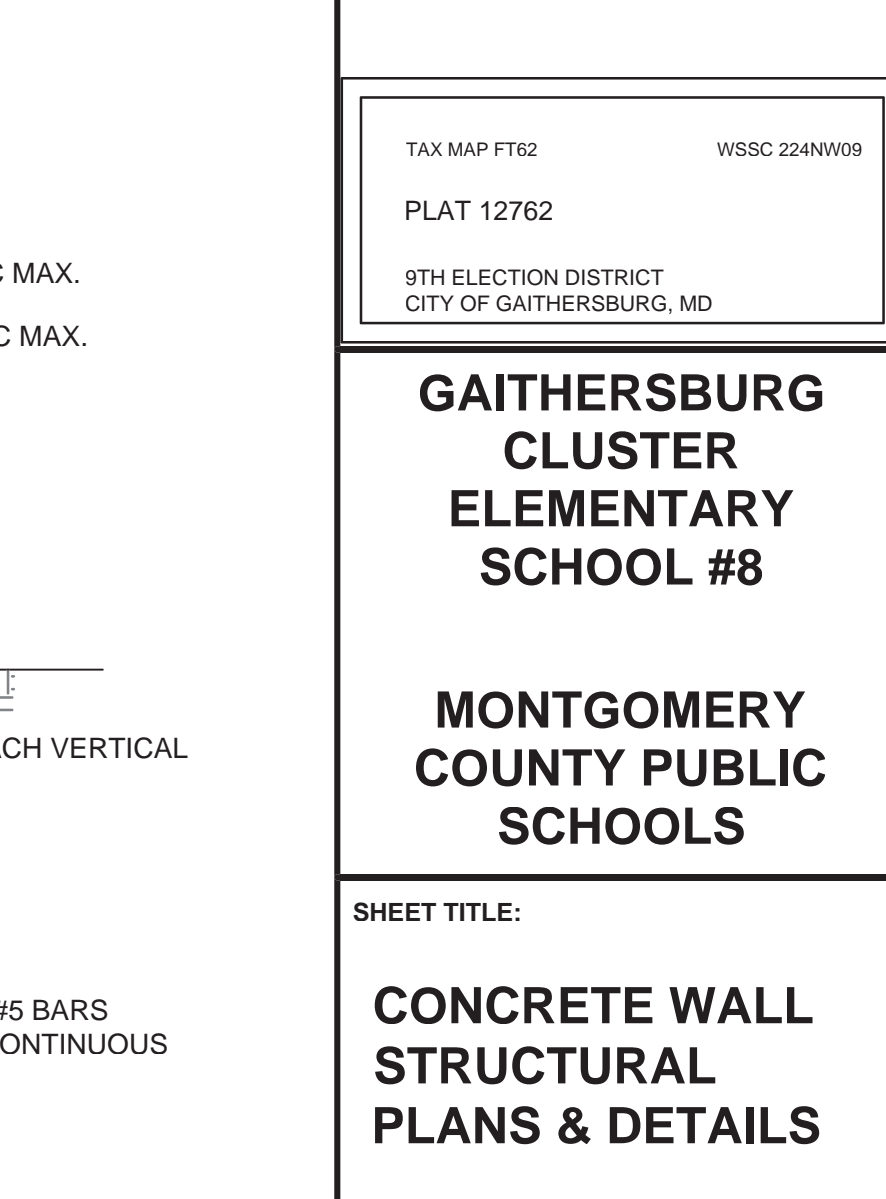
SECTION G-G' - CONCRETE RETAINING WALL DETAIL

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. ADD RUBBER FINISH PAINT PER PAINTING SPECIFICATIONS



SECTION H-H' - CONCRETE RETAINING WALL DETAIL

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. ADD RUBBER FINISH PAINT PER PAINTING SPECIFICATIONS



SECTION I-I' - CONCRETE RETAINING WALL DETAIL

1. CONCRETE SHALL BE SHA MIX #6 (4500 PSI)
2. ADD RUBBER FINISH PAINT PER PAINTING SPECIFICATIONS

DIVISION 1 - GENERAL REQUIREMENTS

GENERAL CODES AND STANDARDS

BUILDING CODES: 2018 INTERNATIONAL BUILDING CODE (IBC) AMENDMENTS

RISK CATEGORY: III

WIND CRITERIA

Vult = 120 MPH

Vasd = 93 MPH

EXPOSURE CATEGORY = B

APPLICABLE INTERNAL PRESSURE COEFFICIENTS = +/- .18

COMPONENTS AND CLADDING (CWC) = 10 (SOF)

ZONE 4 = 31.5 PSF (ASCE 7-10 UNFACTORED)

ZONE 5 = 38.9 PSF (ASCE 7-10 UNFACTORED)

SEISMIC CRITERIA

IE = 1.25

SITE CLASS = D

SS = .135

S1 = .043

SDS = .144

SD1 = .069

R = 2

CS = .0833

SEISMIC DESIGN CATEGORY = B

SNOW LOADS

Pg = 30 PSF

Is = 1.1

CE = 1.0

CT = 1.0

PF = 23.1 PSF

LIVE LOADS

STAR = 100 PSF

RETAINING WALL DESIGN CRITERIA

Pa = 40 PSF/FT

Pp = 240 PSF/FT

UNIT WEIGHT = 120 PCF

FRICITION = .35

SURCHARGE = 100 PSF

LOADS GREATER THAN THE DESIGN LOADS STATED ABOVE SHALL NOT BE PLACED ON THE STRUCTURE DURING OR AFTER CONSTRUCTION.

CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING IN ORDER TO CONSTRUCT THE WALL. CONTRACTOR SHALL HAVE ALL TEMPORARY BRACING, SHEETING, SHORING, FORMWORK, UNDERPINNING, ETC. DESIGNED BY AN ENGINEER REGISTERED IN THE LOCAL JURISDICTION. ONE SET OF SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO COMPREHENSIVE STRUCTURAL SOLUTIONS FOR RECORD PURPOSES. COMPREHENSIVE STRUCTURAL SOLUTIONS IS NOT RESPONSIBLE FOR ANY TEMPORARY SHORING.

CONTRACTOR SHALL SUPPORT AND PROTECT ALL ADJACENT UTILITIES, STRUCTURES, EXCAVATIONS, ETC. AS REQUIRED TO INSTALL THE STRUCTURAL ELEMENTS AS CONTAINED WITHIN THIS SET OF DOCUMENTS.

NO MODIFICATION IN SIZE, DIMENSION, POSITION, OR PENETRATION THROUGH ANY STRUCTURAL ELEMENT SHALL BE MADE WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD.

REFER TO OTHER DISCIPLINE DRAWINGS FOR LOCATIONS OF SLAB PENETRATIONS, DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, REVEALS, DEPRESSIONS, AND OTHER SUCH ELEMENTS NOT DETAILED ON THE STRUCTURAL DRAWINGS.

THE STRUCTURAL DRAWINGS MUST BE USED IN CONJUNCTION WITH OTHER DISCIPLINE DRAWINGS CONTAINED IN THIS SET AND MUST BE COORDINATED AS A WHOLE ELEMENT.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL ELEMENTS SHOWN IN THE CONTRACT DOCUMENTS. IF THE STRUCTURAL DRAWINGS ARE REPLICATED FOR SHOP DRAWING USE BY THE CONTRACTOR, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL INFORMATION SHOWN ON THE SHOP DRAWING. ANY DEVIATIONS FROM THE CONTRACT AS DETAILED ON THE SHOP DRAWINGS SHALL BE HIGHLIGHTED BY THE CONTRACTOR FOR REVIEW BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL ALLOW A MINIMUM OF 10 WORKING DAYS FOR SHOP DRAWING REVIEW.

ALL WORK SHALL BE INSPECTED IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTIONS: ALL INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE LOCAL JURISDICTION, HIRED BY THE PROJECT OWNER. COMPREHENSIVE STRUCTURAL SOLUTIONS WILL NOT PERFORM CODE REQUIRED INSPECTIONS.

DIVISION 2 - SITE WORK

REFER TO THE GEOTECHNICAL REPORT PREPARED BY ECS MID-ATLANTIC DATED JANUARY 30, 2020.

REFER TO THE ABOVE REFERENCED GEOTECHNICAL REPORT FOR ALL BACKFILL REQUIREMENTS AT RETAINING WALLS.

FOOTINGS ARE DESIGNED FOR AN ASSUMED BEARING CAPACITY OF 3000 PSF AND SHALL BEAR ON NATURAL UNDISTURBED SOIL OR CONTROLLED ENGINEERED FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. FOOTINGS SHALL BE LOCATED AT A MINIMUM OF 30 INCHES BELOW EXTERIOR GRADE ELEVATION FOR FROST PROTECTION. SOIL BEARING PRESSURE MUST BE VERIFIED BY A QUALIFIED INSPECTOR. IF FIELD CONDITIONS VARY FROM CONDITIONS NOTED IN THE GEOTECHNICAL REPORT, THE GEOTECHNICAL ENGINEER MUST BE NOTIFIED. IF BEARING CAPACITY IS LESS THAN NOTED ABOVE, THE FOUNDATIONS SHALL BE REDESIGNED.

CONTRACTOR MUST PROVIDE FROST PROTECTION FOR ALL FOOTINGS AND SUBGRADES DURING CONSTRUCTION. NO FOOTINGS SHALL BE CAST ON FROZEN MATERIAL.

DIVISION 3 - CONCRETE

ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE UNLESS OTHERWISE SPECIFIED.

FOR ALL CONCRETE EXPOSED TO WEATHER, FC=4500 PSI MINIMUM AIR-ENTRAINED CONCRETE AT 28 DAYS UNLESS NOTED OTHERWISE. EXPOSED CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.45

THE CONTRACTOR MUST SUBMIT A CONCRETE MIX DESIGN IN ACCORDANCE WITH ACI-318 (LATEST LOCAL APPROVED EDITION). THE ADDITION OF WATER AT THE PLANT OR IN THE FIELD GREATER THAN 1% IS STRICTLY PROHIBITED.

REINFORCING STEEL, INCLUDING TIES AND STIRRUPS, SHALL BE DEFORMED HIGH STRENGTH BILLET STEEL AND SHALL CONFORM TO ASTM A-615 (LATEST LOCAL APPROVED EDITION) GRADE 60. ALL REINFORCING SHALL BE DETAILED, FABRICATED, AND CONSTRUCTED IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES (ACI-315, LATEST LOCAL APPROVED EDITION).

ALL REINFORCING SPLICES SHALL BE CLASS "B" SPLICES IN ACCORDANCE WITH ACI-318 (LATEST LOCAL APPROVED EDITION) UNLESS OTHERWISE NOTED. UNLESS NOTED OTHERWISE, HORIZONTAL WALL REINFORCING SHALL BE BENT AROUND CORNERS AND EXTEND 1'-0\"/>

UNLESS OTHERWISE SPECIFIED, PROVIDE THE FOLLOWING MINIMUM CONCRETE PROTECTION:

CAST AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER	
#5 AND SMALLER BARS	1 1/2"
#6 AND LARGER BARS	2"
NOT EXPOSED TO EARTH OR WEATHER	
SLABS, WALLS, JOISTS	1/2"
BEAMS, GIRDERS, COLUMNS	1 1/2" TO TIES, STIRRUPS, OR SPIRALS

ALL FORMWORK SHALL BE IN ACCORDANCE WITH THE ACI FORMWORK FOR CONCRETE (SPECIAL PUBLICATION #4) AND ACI STANDARD RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347, LATEST LOCAL APPROVED EDITION).

ALL CONCRETE WORK SHALL CONFORM TO THE LATEST CODE APPROVED EDITIONS OF THE ACI AND ASTM SPECIFICATIONS.

CITY OF GAITHERSBURG PLANNING COMMISSION
31 SOUTH SUMMIT AVENUE, GAITHERSBURG, MARYLAND 20878
SITE PLAN APPROVAL
AT THE REGULARLY SCHEDULED MEETING OF THE PLANNING COMMISSION HELD ON: November 4, 2020
APPLICATION NO.: SP-8653-2020
DATE: 11/04/2021
BY: [Signature]
NOTE: ANY REVISIONS TO SIGNED PLANS MUST BE APPROVED BY THE PLANNING COMMISSION OR PLANNING STAFF

CITY OF GAITHERSBURG
DEPARTMENT OF PUBLIC WORKS
FINAL APPROVAL
APPLICATION NO.: SP-8653-2020
DATE: January 6, 2021
BY: [Signature]

ARCHITECT

SHOLEN + KMR
ILKOVITCH
ARCHITECTS

9211 CORPORATE BLVD, SUITE 340
ROCKVILLE, MD 20850
301-770-0177(P) 301-330-3224(F)

CIVIL

MACRIS, HENDRICKS &
GLASCOCK
8220 WIGHTMAN RD, SUITE 120
MONTGOMERY VILLAGE, MD 20886
301-670-0840(P)

STRUCTURAL

COMPREHENSIVE
STRUCTURAL SOLUTIONS
8220 WIGHTMAN RD, SUITE 120
MONTGOMERY VILLAGE, MD 20886
240-200-5599(P)

MECH/ELECTRICAL/PLUMBING

JAMES POSEY ASSOCIATES

11155 RED RUN BLVD, SUITE 310
BALTIMORE, MD 21117
410-265-6100(P)

KITCHEN

NYIKOS-GARCIA
FOODSERVICE DESIGN, INC
18219-A FLOWER HILL WAY
GAITHERSBURG, MD 20879
240-683-9530 (P)

SUSTAINABILITY

DOO CONSULTING, LLC

531 PICCADILLY ROAD
BALTIMORE, MD 21204
443-653-3792 (P)

CONSTRUCTION MANAGER

SKANSKA USA BUILDING INC.

700 KING FARM BLVD, SUITE 200
ROCKVILLE, MD 20850
301-795-3100 (P)

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No.: 32926, Expiration Date: 5.28.2022.

PROFESSIONAL SEAL
Digitally signed by Stacy Rogers
Date: 2021.01.05 17:41:21 -05'00'

PRINTS ISSUED

NO.	DESCRIPTION:	DATE:
A	BID DOCUMENTS	10/21/2020
B	ADDENDUM #2	11/25/2020
C	ADDENDUM #3	12/01/2020
D	ADDENDUM #4	12/03/2020

TAX MAP FTR2
WSSC 22AN019B
PLAT 12762
9TH ELECTION DISTRICT
CITY OF GAITHERSBURG, MD

GAITHERSBURG
CLUSTER
ELEMENTARY
SCHOOL #8

MONTGOMERY
COUNTY PUBLIC
SCHOOLS

SHEET TITLE:

CONCRETE WALL
STRUCTURAL
PLANS & DETAILS

PROJECT NO.: 19007

DATE: 12/04/20

SCALE: AS NOTED

SHEET NO:

11311104qSP-21 10.dwg C2.18 CONCRETE WALL STRUCTURAL PLANS & DETAILS, 12/10/2020 10:07:47 AM, Copyright © 2017 Macris, Hendricks & Glascock, P.A.

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